



Department
for Transport

Rail Vehicle Accessibility: Exemption application

Tyne and Wear Metro - Four specialist cars

Moving Britain Ahead

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Foreword

The Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations 2010 (RVAR) set standards for the accessibility features of a rail vehicle operated on particular types of rail systems. The Secretary of State has powers under section 183 of the Equality Act 2010 to allow operators of regulated rail vehicles to continue to operate a vehicle if it does not fully comply with the standards set in the Schedules to RVAR 2010.

This consultation contains the application from Tyne and Wear Passenger Transport Executive (Trading as “Nexus”) for exemption from standards set out in Schedule 1, Part 1 (General Requirements) and Part 2 (Additional requirements) RVAR 2010 for four individual 'Metrocar' trains operated on its network to meet peak capacity requirements. This is in relation to:

Applicable to cars 4001, 4002, 4040 and 4083

Schedule 1 Part 1 General Requirements:

- 1(1) - Boarding devices
- 3(3) - External door sounding devices
- 3(5)(a) - Door enabled tones
- 3(5)(b) - Timing of audio warning when power doors close
- 4(2) - Timing of visual warning when power doors close
- 10(1)(a) - Location of interior door handrail
- 13(3) - Priority seat dimensions
- 20(1)(a) - Dimensions of wheelchair space
- 20(1)(b) - Dimensions of wheelchair space
- 20(4) - Wheelchair tipping screen

Schedule 1 Part 2 Additional Requirements:

- 3 - Provision of step lighting

Applicable to cars 4001 and 4002 only

Part 1 General Requirements

- 4(1)(b) - Palm operable control devices
- 4(1)(c) - Door control button illuminated surrounds
- 4(1)(e) - Door control button (identifiable by touch)

The consultation period shall run until 14 December 2018. To share your views and comments on the application please contact us at: railvehicleaccess@dft.gsi.gov.uk or write to us at

Tyne and Wear Metro RVAR consultation
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1. Exemption application

1 Full name of applicant and address

Tyne and Wear Passenger Transport Executive (Trading as "Nexus")
Nexus House
St James Boulevard,
Newcastle upon Tyne ,
NE1 4AX

2 Description of Rail Vehicles

Class 599 Metrocar
Units 4001, 4002, 4040 and 4083
Built by Metro Cammell, Birmingham UK
11th August 1980

3 Circumstances in which exemptions are to apply

At all times in passenger service.

4 Relevant requirements from which exemption is sought

Applicable to cars 4001, 4002, 4040 and 4083

Schedule 1 Part 1 General Requirements:

1(1) - Boarding devices

3(3) - External door sounding devices

3(5)(a) - Door enabled tones

3(5)(b) - Timing of audio warning when power doors close

4(2) - Timing of visual warning when power doors close

10(1)(a) - Location of interior door handrail

13(3) - Priority seat dimensions

20(1)(a) - Dimensions of wheelchair space

20(1)(b) - Dimensions of wheelchair space

20(4) - Wheelchair tipping screen

Schedule 1 Part 2 Additional Requirements:

3 - Provision of step lighting

Applicable to cars 4001 and 4002 only

Schedule 1 Part 1 General Requirements

- 4(1)(b) - Palm operable control devices
- 4(1)(c) - Door control button illuminated surrounds
- 4(1)(e) - Door control button (identifiable by touch)

5 **Background**

The Metro car was built in the late 1970s and entered service on the 11th August 1980, and has continued to operate to this present time.

The fleet underwent a half life refurbishment between 1996 and 2000. This included the cars which are the subject of this application. The remainder of the fleet (i.e excluding the four cars detailed in this application) underwent a further $\frac{3}{4}$ Life refurbishment between 2011 and 2015. This brought the remainder of the fleet into RVAR compliance but excluded cars 4001, 4002, 4040 and 4083.

The reasons for this were mainly financial constraint but there were some additional technical reasons, particularly with regard to cars 4001 and 4002 which were the original test trains and were constructed slightly differently from the rest of the fleet, particularly in relation to doors.

6 **Technical, economic and operational reasons why exemption is sought**

As the fleet has aged, reliability has suffered to the extent that Nexus is concerned that unless the four un-refurbished cars are kept in service it will not be possible to meet the service timetable, especially at peak times.

In the last year peak availability averaged 25% against a target of 100%. This is due to the unreliability of the fleet which is now approaching 40 years old and suffering from fatigue related problems as well as obsolescence, making spare parts very difficult to source.

The cars listed in this application are currently in service, performing reasonably well and are not attracting adverse comments from passengers.

They have had some accessibility improvements added along with the rest of the fleet, particularly passenger information displays and automated announcements (“next station is...” etc.). The physical dimensions of the vehicles has not changed and the step/gap distances are the same as the rest of the fleet.

Attached (**at Annex A**) to this application is a spreadsheet showing where the cars do not meet Rail Vehicle Accessibility Regulations and providing some additional information as to reasons why an exemption should be considered.

7 **The measures proposed, if the application is granted, to enable a disabled person to use the rail vehicle.**

Disabled passengers can and still do access the vehicles.

There is no evidence to suggest that disabled passengers avoid using these cars and wait for the next one (almost certainly a refurbished one) to arrive.

Metro has published a Disabled Persons Protection Policy (DPPP) which details numerous features of both the infrastructure and the vehicles. This is a public document approved by ORR and the details will not be reproduced here.

If specific assistance is required, this can be booked in advance and will be provided as necessary at any Metro station on the network.

Beyond December 31st 2019 these four vehicles will not be used routinely during “off peak” times when demand on the fleet is less.

Whilst it is too early to be sure, serious consideration will be given to removing these cars from the fleet as early as possible during the arrival of a new fleet of cars which is in the procurement stage (see below)

8 The period for which the exemption order is requested to be in force.

It is anticipated (though not certain) that a new RVAR compliant fleet will be in place by 31st December 2025 therefore it is proposed that the exemption be in force until that date.

9 Unless an exemption order is sought for an indefinite period, the proposed timetable of action, before it would cease to be in force, to render the rail vehicle compliant with any RVAR provisions from which it had been exempt.

Nexus has secured funding from central government to replace the existing fleet of Metrocars which will be RVAR compliant. The specification for the new vehicles is complete and the current programme is:-

June 2018 – Final approval of Specification (Done)

January 2018 – Issue Pre –Information Notice (Done)

June 2018 – OJEU Pre- qualification Notice issued (Done)

September 2018 – Invitation to Negotiate issued (Done)

January 2020 – Complete Full Business Case

March 2020 – Contract award

March 2020 – Contract start date

December 2025 – New fleet fully operational

All the above currently on programme

10 Where prior consultation with the operator of the rail vehicle is required by regulation 3(2) of the Rail Vehicle Accessibility (Applications for Exemption Orders) Regulations 2010, please set out the response of the operator to the consultation.

Nexus is the owner and operator of the Rail Vehicles therefore there are no consultation responses to report.

Annex A: Compliance Assessment Matrix

RVAR Compliance						
Rail Vehicle Accessibility (Non-Interoperable Rail System) Regulations 2010						
	Non-compliance accepted					
	Non compliant					
	Some compliance achieved					
Accessibility Standards		Class : Tyne and Wear Metro Operator : Nexus		Level of compliance proposed for cars 4001, 4002, 4040 and 4083		
Reason for ongoing non compliance	Part 1 Regulation No.	Requirement(s)	Compliant	Comments		
Boarding Devices						
	1(1)	...when a wheelchair-compatible doorway in a rail vehicle is open at a platform at a station, or at a stop, a boarding device must be fitted by the operator between that doorway and the platform, or the stop, if a disabled person in a wheelchair wishes to use that doorway	N	This is the subject of a separate exemption application proposing allowable step /gap dimensions of 63mm and 110mm respectively.	Non compliant but subject to separate exemption application for whole fleet	Separate RVAR exemption applied for "feet wide". Upgrades to the provision of ramps have been made in the DFFP together with pre-booking periods
Doors						
	3(8)	...each passenger doorway in the side of a rail vehicle must be fitted with an audible warning device which must emit warning sounds in accordance with sub-paragraph (5) inside and outside the vehicle in the proximity of each control device for the doorway or, if there is no such control device, adjacent to the doorway.	N	There are existing door tones inside the vehicles which emit a warning sound prior to the doors closing. There is no warning device external to the vehicle.	Non compliant -original door tones to remain	Excessive electrical and structural work required given the limited remaining life of the vehicle
	3(6)	The audible warning device must- where the unlocking of all the passenger doors in the side of a rail vehicle is activated by a member of the operator's staff, emit a distinct sound for a period of not less than 3 seconds commencing when the doors become openable by passengers;	N	No enabled tone for opening of doors.	Non compliant	Excessive electrical and structural work required given the limited remaining life of the vehicle
	3(6)(b)	emit a different distinct sound to that required by paragraph (a) and, where applicable, paragraph 1 of Part 2 of this Schedule, commencing not less than 3 seconds before the door starts to close	N	Closure is initiated by train staff. The audible closure warning consists of a flat tone (approx 2s) and then a spoken word notification (approx 2s). There is no external sounder.	Non compliant	Excessive electrical work required given the limited remaining life of the vehicle
Doorways (exterior) and through routes (Wheelchair compatible)						
	4(1)	No control device to enable a passenger to open or close a power-operated door other than a device to which sub paragraph (3) below applies, shall be fitted to a rail vehicle unless:				
	4(1)(b)	(b) the control device is operable by the palm of the hand exerting a force not exceeding 15 newtons;	Y/N	Palm operable on 4040 and 4083. However cars 4001 and 4002 have different door and control arrangements requiring a finger pressed button.	Car 4040 and 4083 compliant but car 4001 and 4002 different door system.	Total door system re-work required as the doors on 4001 and 4002 are a different type altogether to the rest of the fleet. Considered excessive given the remaining life of the fleet.
	4(1)(c)	(c) the control device or its immediate surround is illuminated continuously whenever it is operable;	Y/N	Illuminated on 4040 and 4083. However cars 4001 and 4002 have a separate illuminated light from the door button.	Car 4040 and 4083 compliant but car 4001 and 4002 different door system.	Total door system re-work required as the doors on 4001 and 4002 are a different type altogether to the rest of the fleet. Considered excessive given the remaining life of the fleet.
	4(1)(e)	(e) the control device is identifiable by touch.	Y/N	Identifiable by touch on 4040 and 4083. However cars 4001 and 4002 have different door and control arrangements requiring a less obvious finger pressed button.	Car 4040 and 4083 compliant but car 4001 and 4002 different door system.	Total door system re-work required as the doors on 4001 and 4002 are a different type altogether to the rest of the fleet. Considered excessive given the remaining life of the fleet.
	4(2)	When power-operated doors are closed by a member of the operator's staff, the illumination of each such control device shall cease not less than 3 seconds before the doors start to close.	N	Non compliant. Illumination ceases at same point as warning tones cease, when it should extinguish when they begin. Addressed and non compliance accepted in principle in dFT letter dated 13/5/09	Non-compliance accepted by DFT letter dated 13/06/09.	Copy of letter attached to exemption application
Handrails						
	10(1)	A handrail must be fitted in the following positions:				
	10(1)(a)	(a) in every regulated rail vehicle as close as practicable on either side of the interior of an external doorway extending vertically from a point not more than 700mm above the floor to a point not less than 1200mm above the floor; and	N	Bottom of usable handrail starts at 910mm and top is 1520. This is the subject of a separate exemption application. Addressed and non compliance accepted in principle in dFT letter dated 13/5/09	Non-compliance accepted by DFT letter dated 13/06/09.	Copy of letter attached to exemption application
Seats						
	18(3)	Each priority seat and the space available to its user shall comply with the specifications shown in diagram C1 and in diagram C2, C3 or C4 in the Schedule.	Y/N	Priority Seat dimensions ht 470mm, wd 500mm. Headroom 1150mm, non-compliant . Front clearance - 2 inward facing seats are compliant but facing seats range from 440mm-470mm clearance and are non-compliant.	Some compliance achieved	Excessive internal re- structuring given the limited remaining life of the vehicle.
Wheelchair Space Specifications						
	20(1)	A wheelchair space must not be less than				
	20(1)(a)	1300mm long measured parallel to the rail vehicle.	N	Current spaces are inward facing and measure 800mm parallel to the length of the vehicle	Non compliant	Excessive internal re- structuring given the limited remaining life of the vehicle.
	20(1)(b)	750 mm wide measured parallel to the width of the vehicle	N	Current spaces are inward facing and measure 750mm parallel to the width of the vehicle	Non compliant	Excessive internal re- structuring given the limited remaining life of the vehicle.
	20(4)	The wheelchair space must incorporate, at one end, a fitting with a minimum width of 700 millimetres capable of preventing a reference wheelchair, with its back against the fitting, from moving or tipping towards the fitting.	N	Current spaces are inward facing and do not have a tipping screen	Non compliant	Excessive internal re- structuring given the limited remaining life of the vehicle.
Part 2 Regulation No.						
	3	At a passenger doorway in the side of a rail vehicle the edge of the floor along the entrance must be illuminated by a light placed within or immediately adjacent to that edge.	N		Non compliant	Excessive structural and electrical work required given the limited life of the vehicle.